

## CLAIMS

1. A fuel supply system to introduce fuel from a fuel tank to an injector through the order of a fuel pump and a pressure regulator:

wherein said fuel pump discharges the amount of fuel in proportion to the engine revolution when below a specific engine revolution and discharges an almost constant amount when above the specific engine revolution; and

wherein a returnless pressure regulator is adopted as said pressure regulator.

2. The fuel supply system according to claim 1:

comprising a low pressure fuel pump which pressure is lower than said fuel pump and a vapor-liquid separating device between said fuel tank and said fuel pump;

wherein said low pressure fuel pump discharges fuel from said fuel tank to said vapor-liquid separating device, and said fuel pump discharges fuel from said vapor-liquid separating device to said pressure regulator.

3. The fuel supply system according to claim 2, wherein said fuel pump is located above said low pressure fuel pump, and said low pressure fuel pump is located above said vapor-liquid separating device.

4. The fuel supply system according to claim 1, wherein a positive displacement pump which intakes and discharges a specific volume of fluid is adopted as said fuel pump.

5. The fuel supply system according to claim 1, wherein a check valve is disposed either between said vapor-liquid separating device and said fuel pump or between said fuel pump and said pressure regulator.